

IN THE CLAIMS:

1. (Previously Presented) A zoom lens system comprising in order from an object side of said zoom lens system:

- a first lens group having positive refracting power;
- a second lens group that has negative refracting power and moves from an object side to an image plane side of said system during zooming from a wide-angle end to a telephoto end of said system;
- a third lens group having positive refracting power; and
- a fourth lens group that has positive refracting power and is movable during zooming, wherein:

- said first lens group consists of one positive single lens alone,
- said third lens group comprises three lenses, a positive lens, a positive lens and a negative lens, or two lenses, a positive lens and a negative lens,
- said third lens group has at least one aspherical surface therein, and
- a negative lens is located nearest to an object side of the second lens group that satisfies at least the following condition (7):

$$\nu_{21} < 40 \qquad \dots (7),$$

wherein ν_{21} is an Abbe's number of said negative lens.

2. – 41. (Canceled)

42. (Currently Amended) A zoom lens system comprising in order from an object side of said zoom lens system:

- a first lens group having positive refracting power;
- a second lens group that has negative refracting power and moves from an object side to an image plane side of said system during zooming from a wide-angle end to a telephoto end of said system;
- a third lens group having positive refracting power; and
- a fourth lens group that has positive refracting power and is movable during zooming, wherein:

- said first lens group comprises two lenses, a negative lens and a positive lens,

said third lens group consists of three lenses, a positive lens, a positive lens and a negative lens, ~~and~~ said third lens group has at least one aspherical surface therein, and

said fourth lens group consists of one lens component.

43. (Previously Presented) A zoom lens system comprising in order from an object side of said zoom lens system:

a first lens group having positive refracting power;

a second lens group that has negative refracting power and moves from an object side to an image plane side of said system during zooming from a wide-angle end to a telephoto end of said system;

a third lens group having positive refracting power; and

a fourth lens group that has positive refracting power and is movable during zooming, wherein:

said first lens group comprises two lenses, a negative lens and a positive lens, or one positive lens alone,

said third lens group comprises three lenses, a positive lens, a positive lens and a negative lens, or two lenses, a positive lens and a negative lens,

said fourth lens group consists of one positive single lens alone,

said third lens group has at least one aspherical surface therein, and

a negative lens is located nearest to an object side of the second lens group and satisfies at least the following condition (7):

$$\nu_{21} < 40 \qquad \dots (7),$$

wherein ν_{21} is an Abbe's number of said negative lens.

44. (Canceled)

45. (Currently Amended) A zoom lens system comprising in order from an object side of said zoom lens system:

a first lens group having positive refracting power;

a second lens group that has negative refracting power and moves from an object side to an image plane side of said system during zooming from a wide-angle end to a telephoto end of said system;

a third lens group having positive refracting power; and
a fourth lens group that has positive refracting power and is movable during zooming, wherein:

said first lens group comprises two lenses, a negative lens and a positive lens, or one positive lens alone,

said second lens group consists of a negative single lens, a negative single lens, and a positive single lens,

said third lens group comprises three lenses, a positive lens, a positive lens and a negative lens, or two lenses, a positive lens and a negative lens,

said third lens group has at least one aspherical surface therein, ~~and~~
a negative lens is located nearest to an object side of the second lens group that satisfies at least the following condition (7):

$$\nu_{21} < 40 \qquad \dots (7),$$

wherein ν_{21} is an Abbe's number of said negative lens, and
said fourth lens group consists of one lens component.

46. (Previously Presented) A zoom lens system comprising in order from an object side of said zoom lens system:

a first lens group having positive refracting power;

a second lens group that has negative refracting power and moves from an object side to an image plane side of said system during zooming from a wide-angle end to a telephoto end of said system;

a third lens group having positive refracting power; and

a fourth lens group that has positive refracting power and is movable during zooming, wherein:

said first lens group comprises two lenses, a negative lens and a positive lens, or one positive lens alone,

said third lens group comprises a positive lens, a positive lens and a negative lens,

said third lens group has at least one aspherical surface therein, and
a negative lens is located nearest to an object side of the second lens group that satisfies at least the following condition (7):

$$\nu_{21} < 40 \qquad \dots (7),$$

wherein ν_{21} is an Abbe's number of said negative lens.

47. (Previously Presented) A zoom lens system comprising in order from an object side of said zoom lens system:

a first lens group having positive refracting power;

a second lens group that has negative refracting power and moves from an object side to an image plane side of said system during zooming from a wide-angle end to a telephoto end of said system;

a third lens group having positive refracting power; and

a fourth lens group that has positive refracting power and is movable during zooming, wherein:

said first lens group comprises two lenses, a negative lens and a positive lens, or one positive lens alone,

said third lens group comprises a positive single lens convex on an object side thereof and a doublet consisting of a positive lens convex on an object side thereof and a negative lens concave on an image side thereof,

said third lens group has at least one aspherical surface therein, and

a negative lens is located nearest to an object side of the second lens group that satisfies at least the following condition (7):

$$\nu_{21} < 40 \qquad \dots (7),$$

wherein ν_{21} is an Abbe's number of said negative lens.

48. (Previously Presented) A zoom lens system according to claim 47, wherein the third lens group comprises a cemented surface that is convex on an object side thereof.

49. (Currently Amended) A zoom lens system comprising in order from an object side of said zoom lens system:

a first lens group having positive refracting power;

a second lens group that has negative refracting power and moves from an object side to an image plane side of said system during zooming from a wide-angle end to a telephoto end of said system;

a third lens group having positive refracting power; and

a fourth lens group that has positive refracting power and is movable during zooming, wherein:

said first lens group comprises two lenses, a negative lens and a positive lens, or one positive lens alone,

said fourth lens group has a surface with a stronger curvature on an object side thereof than on an image side thereof,

said third lens group comprises three lenses, a positive lens, a positive lens and a negative lens, or two lenses, a positive lens and a negative lens,

said third lens group has at least one aspherical surface therein, and

a negative lens is located nearest to an object side of the second lens group that satisfies at least the following condition (7):

$$\nu_{21} < 40 \qquad \dots (7),$$

wherein ν_{21} is an Abbe's number of said negative lens, and
said fourth lens group consists of one lens component.

50. (Previously Presented) A zoom lens system according to any one of claims 1 or 43, wherein the first lens group remains fixed during zooming.

51. (Previously Presented) A zoom lens system according to any one of claims 1 or 43, wherein the third lens group moves during zooming.

52. (Previously Presented) A zoom lens system according to any one of claims 1 or 43, wherein the third lens group moves toward the object side of the system from the wide-angle end to the telephoto end.

53. (Previously Presented) A zoom lens system comprising in order from an object side of said zoom lens system:

a first lens group having positive refracting power;

a second lens group that has negative refracting power and moves from an object side to an image plane side of said system during zooming from a wide-angle end to a telephoto end of said system;

a third lens group having positive refracting power; and

a fourth lens group that has positive refracting power and is movable during zooming, wherein:

said first lens group comprises two lenses, a negative lens and a positive lens, or one positive lens alone,

said third lens group comprises three lenses, a positive lens, a positive lens and a negative lens, or two lenses, a positive lens and a negative lens,

said third lens group has at least one aspherical surface therein,

a negative lens is located nearest to an object side of the second lens group that satisfies at least the following condition (7):

$$\nu_{21} < 40 \qquad \dots (7),$$

wherein ν_{21} is an Abbe's number of said negative lens, and

a condition $0.5 < |F_2 / F_3| < 1.2$ is satisfied, where F_i is a focal length of an i -th lens group.

54. (Previously Presented) A zoom lens system comprising in order from an object side of said zoom lens system:

a first lens group having positive refracting power;

a second lens group that has negative refracting power and moves from an object side to an image plane side of said system during zooming from a wide-angle end to a telephoto end of said system;

a third lens group having positive refracting power; and

a fourth lens group that has positive refracting power and is movable during zooming, wherein:

said first lens group comprises two lenses, a negative lens and a positive lens, or one positive lens alone,

said third lens group comprises three lenses, a positive lens, a positive lens and a negative lens, or two lenses, a positive lens and a negative lens,

said third lens group has at least one aspherical surface therein,

a negative lens is located nearest to an object side of the second lens group that satisfies at least the following condition (7):

$$\nu_{21} < 40 \qquad \dots (7),$$

wherein ν_{21} is an Abbe's number of said negative lens, and

a condition $0.49 < |L_3 / L_2| < 1$ is satisfied, where L_i is an amount of movement of an i -th lens group from the wide-angle end to the telephoto end.

55. (Previously Presented) A zoom lens system comprising in order from an object side of said zoom lens system:

a first lens group having positive refracting power;

a second lens group that has negative refracting power and moves from an object side to an image plane side of said system during zooming from a wide-angle end to a telephoto end of said system;

a third lens group having positive refracting power; and

a fourth lens group that has positive refracting power and is movable during zooming, wherein:

said first lens group comprises two lenses, a negative lens and a positive lens, or one positive lens alone,

said third lens group comprises three lenses, a positive lens, a positive lens and a negative lens, or two lenses, a positive lens and a negative lens,

said third lens group has at least one aspherical surface therein,

a negative lens is located nearest to an object side of the second lens group that satisfies at least the following condition (7):

$$\nu_{21} < 40 \quad \dots (7),$$

wherein ν_{21} is an Abbe's number of said negative lens, and

a condition $2 < (F_{3,4w}) / IH < 3.3$ is satisfied, where $F_{3,4w}$ is a composite focal length of said third and fourth lens groups at the wide-angle end, and IH is a radius of an image circle.

56. (Previously Presented) A zoom lens system comprising in order from an object side of said system:

a first lens group having positive refracting power;

a second lens group having negative refracting power;

a third lens group having positive refracting power; and

a fourth lens group having positive refracting power,

wherein:

during zooming, a space between said first and second lens groups, a space between said second and third lens groups and a space between said third and fourth lens groups vary independently,

said third lens group consists of, in order from an object side thereof, a double-convex positive lens, and a doublet consisting of a positive meniscus lens convex on an object side thereof and a negative meniscus lens, and said fourth lens group consists of a double-convex lens having a large curvature on an object side surface thereof, and

a negative lens is located nearest to the object side of the second lens group and a condition $\nu_{21} < 40$ is satisfied, wherein ν_{21} is an Abbe's number of said negative lens.

57. (Previously Presented) A zoom lens system comprising in order from an object side of said system:

- a first lens group having positive refracting power;
- a second lens group having negative refracting power;
- a third lens group having positive refracting power; and
- a fourth lens group having positive refracting power,

wherein during zooming, a space between said first and second lens groups, a space between said second and third lens groups and a space between said third and fourth lens groups vary independently,

wherein said third lens group consists of, in order from an object side thereof, a double-convex positive lens, and a doublet consisting of a positive meniscus lens convex on an object side thereof and a negative meniscus lens, and said fourth lens group consists of a positive lens having a large curvature on an object side surface thereof, and

wherein the first lens group consists of two lenses, a negative lens and a positive lens, and the second lens group comprises, in order from an object side thereof, a negative lens, a negative lens and a positive lens.

58. (Previously Presented) A zoom lens system comprising in order from an object side of said system:

- a first lens group having positive refracting power;

a second lens group having negative refracting power;
a third lens group having positive refracting power; and
a fourth lens group having positive refracting power,
wherein during zooming, a space between said first and second lens groups,
a space between said second and third lens groups and a space between said third
and fourth lens groups vary independently,

wherein said third lens group consists of, in order from an object side
thereof, a double-convex positive lens, and a doublet consisting of a positive
meniscus lens convex on an object side thereof and a negative meniscus lens,
wherein said first lens group consists of two lenses, a negative lens and a positive
lens, and said fourth lens group consists of a positive lens having a large curvature
on an object side surface thereof, and

wherein the second lens group is positioned on the image side at a telephoto
end of the zoom lens system rather than at a wide-angle end of the zoom lens
system, and the third lens group is positioned on the object side at the telephoto end
of the zoom lens system rather than at the wide-angle end of the zoom lens system.

59. (Previously Presented) A zoom lens system according to claim 58, wherein
the fourth lens group moves during zooming.

60. (Currently Amended) A zoom lens system comprising, in order from an
object side thereof;

a positive first lens group consisting of two lenses, a negative lens and a
positive lens;

a negative second lens group comprising, in order from an object side
thereof, a negative lens convex on an object side thereof, a negative lens concave on
an image side thereof and a positive lens convex on an object side thereof;

a positive third lens group comprising, in order from an object side thereof, a
positive single lens convex on an object side thereof and a doublet consisting of a
positive lens convex on an object side thereof and a negative lens concave on an
image side thereof, with any of surfaces therein being defined by an aspheric
surface, and

a fourth lens group ~~comprising~~ consisting of one positive single lens convex on an object side thereof,

wherein at least the second, third and fourth lens groups move for zooming from a wide-angle end to a telephoto end of said zoom lens system, the second lens group moves toward the image side at the telephoto end rather than at the wide-angle end, and the third lens group moves toward the object side at the telephoto end rather than at the wide-angle end.

61. (Currently Amended) A zoom lens system comprising in order from an object side of said system:

a first lens group having positive refracting power;

a second lens group that has negative refracting power and moves from an object side to an image plane side of said system during zooming from a wide-angle end to a telephoto end of said system;

a third lens group having positive refracting power; and

a fourth lens group that has positive refracting power and is movable during zooming, wherein:

said first lens group consists of two lenses, a negative lens and a positive lens, or one positive lens alone,

said third lens group comprises three lenses, a bi-convex positive lens, a bi-convex positive lens and a negative lens, ~~and~~

said third lens group has at least one aspherical surface therein, and

said fourth lens group consists of one lens component.

62. (Currently Amended) A zoom lens system comprising in order from an object side of said system:

a first lens group having positive refracting power;

a second lens group that has negative refracting power and moves from an object side to an image plane side of said system during zooming from a wide-angle end to a telephoto end of said system;

a third lens group that has positive refracting power and is movable during zooming; and

a fourth lens group that has positive refracting power and is movable during zooming, wherein:

said first lens group consists of two lenses, a negative lens and a positive lens, or one positive lens alone,

said third lens group consists of three lenses, a positive lens, a positive lens and a bi-concave negative lens, ~~or two lenses, a positive lens and a bi-concave negative lens, and~~

said third lens group has at least one aspherical surface therein, and

said fourth lens group consists of one lens component.

63. (Previously Presented) A zoom lens system comprising in order from an object side of said system:

a first lens group having positive refracting power;

a second lens group that has negative refracting power and moves from an object side to an image plane side of said system during zooming from a wide-angle end to a telephoto end of said system;

a third lens group having positive refracting power; and

a fourth lens group that has positive refracting power and is movable during zooming, wherein:

said first lens group consists of two lenses, a negative lens and a positive lens, or one positive lens alone,

said third lens group comprises three lenses, a positive lens, a positive lens and a negative lens, or two lenses, a positive lens and a negative lens,

said third lens group has at least one aspherical surface therein, and the following condition (3) is satisfied:

$$2 < (F3 \cdot 4W) / IH < 3.3 \quad (3)$$

where $(F3 \cdot 4W)$ is a composite focal length of said third and fourth lens groups at the wide-angle end, and IH is a radius of an image circle.

64. (Currently Amended) A zoom lens system comprising in order from an object side of said system:

a first lens group having positive refracting power;

a second lens group that has negative refracting power and moves from an object side to an image plane side of said system during zooming from a wide-angle end to a telephoto end of said system;

a third lens group having positive refracting power; and

a fourth lens group that has positive refracting power and is movable during zooming, wherein:

said first lens group consists of two lenses, a negative lens and a positive lens, or one positive lens alone,

said second lens group comprises at least two single lenses,

said third lens group consists of three lenses, a positive lens, a positive lens and a bi-concave negative lens, ~~or two lenses, a positive lens and a negative lens,~~

said third lens group has at least one aspherical surface therein, and

the following condition (4) is satisfied:

$$0.6 < |F2 / F3| < 1 \quad (4)$$

where F_i is a focal length of an i -th lens group.

65. (Currently Amended) A zoom lens system comprising in order from an object side of said system:

a first lens group having positive refracting power;

a second lens group that has negative refracting power and moves from an object side to an image plane side of said system during zooming from a wide-angle end to a telephoto end of said system;

a third lens group having positive refracting power; and

a fourth lens group that has positive refracting power and is movable during zooming, wherein:

said first lens group consists of two lenses, a negative lens and a positive lens, or one positive lens alone,

said second lens group comprises at least three lens components,

said third lens group consists of three lenses, a positive lens, a positive lens and a bi-concave negative lens, ~~or two lenses, a positive lens and a negative lens,~~

said third lens group has at least one aspherical surface therein, and

the following condition (4) is satisfied:

$$0.6 < |F2 / F3| < 1 \quad (4)$$

where F_i is a focal length of an i -th lens group.

66. (Previously Presented) A zoom lens system comprising in order from an object side of said system:

a first lens group having positive refracting power;

a second lens group that has negative refracting power and moves from an object side to an image plane side of said system during zooming from a wide-angle end to a telephoto end of said system;

a third lens group having positive refracting power; and

a fourth lens group that has positive refracting power and is movable during zooming, wherein:

said first lens group consists of two lenses, a negative lens and a positive lens,

said third lens group comprises three lenses, a positive lens, a positive lens and a negative lens, or two lenses, a positive lens and a negative lens, and said third lens group consists of two lens components,

said third lens group has at least one aspherical surface therein, and the following condition (4) is satisfied:

$$0.6 < |F_2 / F_3| < 1 \quad (4)$$

where F_i is a focal length of an i -th lens group.

67. (Currently Amended) A zoom lens system comprising in order from an object side of said system:

a first lens group having positive refracting power;

a second lens group that has negative refracting power and moves from an object side to an image plane side of said system during zooming from a wide-angle end to a telephoto end of said system;

a third lens group having positive refracting power; and

a fourth lens group that has positive refracting power and is movable during zooming, wherein:

said first lens group consists of two lenses, a negative lens and a positive lens, or one positive lens alone,

said third lens group comprises three lenses, a positive lens, a positive lens and a negative lens,

said third lens group has at least one aspherical surface therein, and

the following condition (5) is satisfied:

$$0.3 < |F_3 / F_4| < 0.8 \quad (5)$$

where F_i is a focal length of an i -th lens group, and

said fourth lens group consists of one lens component.

68. (Previously Presented) A zoom lens system comprising in order from an object side of said system:

a first lens group having positive refracting power;

a second lens group that has negative refracting power and moves from an object side to an image plane side of said system during zooming from a wide-angle end to a telephoto end of said system;

a third lens group having positive refracting power; and

a fourth lens group that has positive refracting power and is movable during zooming, wherein:

said first lens group consists of two lenses, a negative lens and a positive lens, or one positive lens alone,

said third lens group comprises three lenses, a positive lens, a positive lens and a negative lens,

said third lens group has at least one aspherical surface therein, and

the following condition (6) is satisfied:

$$0.4 < |\beta_{2T}| < 1 \quad (6)$$

where β_{2T} is a lateral magnification of the second lens group at the telephoto end of said system.

69. (Previously Presented) A zoom lens system comprising in order from an object side of said system:

a first lens group having positive refracting power;

a second lens group that has negative refracting power and moves from an object side to an image plane side of said system during zooming from a wide-angle end to a telephoto end of said system;

a third lens group having positive refracting power; and
a fourth lens group that has positive refracting power and is movable during
zooming, wherein:

said first lens group consists of two lenses, a negative lens and a positive
lens, or one positive lens alone,

said third lens group comprises three lenses, a positive lens, a positive lens
and a negative lens, or two lenses, a positive lens and a negative lens,

at least one of the lenses in said third lens group has a concave surface on an
image side thereof,

said third lens group has at least one aspherical surface therein, and
the following condition (6) is satisfied:

$$0.4 < |\beta_{2T}| < 1 \quad (6)$$

where β_{2T} is a lateral magnification of the second lens group at the telephoto end of
said system.

70. (Previously Presented) A zoom lens system according to any one of claims
57, 58, 60 and 66, wherein the first lens group includes an air separation interposed
between the negative lens and the positive lens thereof.

71. (Previously Presented) A zoom lens system according to any one of claims
1, 42, 43, 45, 46, 47, 56, 57, 58 and 59, wherein the third lens group moves
constantly from the image plane side to the object side during zooming from the
wide-angle end to the telephoto end.

72. (Previously Presented) A zoom lens system according to any one of claims
1, 42, 43, 45, 46, 47, 56, 57, 58 and 59, wherein the second lens group moves
constantly from the object side to the image plane side during zooming from the
wide-angle end to the telephoto end.